

REMARKS

Claims 1, 3, 12-14, 16, 17 and 19-25 are pending in the application.

The Information Disclosure Statement filed September 22, 2005 is objected to.

Claim 1 is objected to.

Claims 1, 2, 12, 13 and 15-19 are rejected under 35 U.S.C. § 102.

Claims 3, 14 and 20-24 are rejected under 35 U.S.C. § 103.

Claims 1, 3, 12 and 19 are amended.

Claims 2, 15 and 18 are cancelled.

Claims 24 and 25 are added.

No new matter has been added.

Applicants request reconsideration and allowance of the claims in light of the amendments above and in view of the following remarks.

Claim Objection

Claim 1 is objected to because the word “created” or “manufactured” needs to be inserted between “groups” and “by.” Applicants hereby amend claim 1 in a manner consistent with the suggestion provided by the Office Action. Withdrawal of the objection to claim 1 is respectfully requested.

Claim Rejections 35 U.S.C. § 102

Claims 1, 2, 12, 13 and 15-19 are rejected under 35 U.S.C. § 102(b) as being anticipated by European Patent App. Pub. No. EP 1 148 538 A1 to Akahori, et al. (hereinafter “Akahori”). Applicants respectfully traverse this rejection.

Amended claim 1 recites, among other elements, “a ceria slurry including ceria powder, water and negative-ion-based polymeric compound of 2 to 10 % by weight with respect to the ceria powder; and a chemical additive having two or more functional groups manufactured by mixing and synthesizing a polymeric molecule and a monomer and then mixing the polymeric molecule and monomer with solvent.” Similarly, amended claim 12 recites “manufacturing a ceria slurry including ceria powder, water and negative-ion-based polymeric compound of 2 to 10 % by weight with respect to the ceria powder.” Support for this amendment can be found at,

for example, page 5, lines 31-32 and page 6, lines 23-26 of the specification as originally filed. Applicants respectfully submit Akahori fails to teach this feature now recited in claims 1 and 12.

For example, although Akahori discloses a ceria slurry in which a dispersant is added, the amount of the dispersant in a range 2 to 10% by weight with respect to the ceria slurry is not disclosed. Meanwhile, in paragraph [0026] of Akahori, the amount of dispersant added in the ceria slurry is described to be 0.01 to 2 parts by weight relative to 100 parts by weight of ceria powder. Thus, the amount of negative-ion-based polymeric compound included in the ceria slurry of the present invention is different from that of Akahori.

Further, the chemical additive recited the claims is manufactured by mixing and synthesizing a polymeric molecule and a monomer, and then mixing the polymeric molecule and monomer with solvent. Although polymeric molecules and monomers are disclosed in Akahori, one of the polymeric molecules and monomers is merely used as the chemical additive according to Akahori. That is, Akahori does not teach or suggest mixing the chemical additive with solvent after mixing and synthesizing the polymeric molecules and monomers.

For at least the reasons presented above, Applicants respectfully submit Akahori fails to anticipate claims 1 and 12.

Further rejecting claims 1 and 12, the Office Action asserts that the “liquid additive [of Akahori] comprises a dispersant which is a copolymer of an acrylic acid polymer, which is synthesized to include methyl acrylate as a monomer.” Applicants respectfully disagree.

Specifically, Table 1-1 and 1-2 (hereinafter “the Table”) of Akahori shows wherein the liquid additive includes a dispersant which comprises acrylic acid and methyl acrylate. The Table, however, contains no information regarding whether the liquid additive includes “a copolymer of an acrylic acid polymer, which is synthesized to include methyl acrylate” as asserted in the Office Action. Moreover, the Table contains no information regarding whether the liquid additive “has two or more functional groups manufactured by mixing and synthesizing a polymeric molecule and a monomer” as recited in claims 1 and 12.

Further while paragraph [0031] of Akahori states that dispersants suitable for the cerium oxide slurry are also suitable for the liquid additive, no paragraphs of Akahori teach wherein any dispersant “has two or more functional groups manufactured by mixing and synthesizing a polymeric molecule and a monomer” as recited in claims 1 and 12.

For example, paragraph [0020] of Akahori provides an example of a polymer dispersant as a copolymer “of an unsaturated carboxylic acid, such as acrylic acid... with a copolymerizable monomer, for example, an alkyl acrylate, such as methyl acrylate.” Applicants respectfully submit that the description of a copolymer of acrylic acid and a methyl acrylate monomer does not expressly teach or inherently suggest that the acrylic acid component of the aforementioned copolymer is a polymeric molecule. The Office Action identifies no basis in fact or technical reasoning reasonably supporting a determination that the acrylic acid component of the aforementioned copolymer is a polymeric molecule.

In addition, paragraph [0045] of Akahori describes a polyacrylic acid copolymer as a copolymerization product of acrylic acid and methyl acrylate. Such a description, however, does not expressly teach or inherently suggest that the polyacrylic acid copolymer has “two or more functional groups manufactured by mixing and synthesizing a polymeric molecule and a monomer” as recited in claims 1 and 12.

Claims 2, 13 and 15-19 variously depend from claims 1 and 12 and, therefore, include all of the limitations recited in claims 1 and 12. Accordingly, claims 2, 13 and 15-19 are not anticipated by Akahori at least by virtue of their various dependence from claims 1 and 12.

Claim Rejections 35 U.S.C. § 103

Claims 3 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Akahori in view of European Patent App. Pub. No. EP 1 061 111 A1 to Kido, et al. (hereinafter “Kido”). Applicants respectfully traverse this rejection.

Claims 3 and 14 variously depend from claims 1 and 12 and, therefore, include all of the limitations recited in claims 1 and 12. As shown above, Akahori fails to anticipate claims 1 and 12. Kido does not cure the deficiencies of Akahori with respect to claims 1 or 12. Accordingly, claims 3 and 14 are not rendered obvious by the combination of Akahori in view of Kido at least by virtue of their various dependence from claims 1 and 12.

Claims 20-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Akahori. Applicants respectfully traverse this rejection.

Claims 20-24 variously depend from claims 1 and 12 and, therefore, include all of the limitations recited in claims 1 and 12. As shown above, Akahori fails to anticipate claims 1 and

12. Moreover, the differences between Akahori and claims 1 and 12 are not obvious. Accordingly, claims 20-24 are not rendered obvious by Akahori at least by virtue of their various dependence from claims 1 and 12.

New Claims

Support for new claim 24 can be found at, for example, page 5, lines 31-32 of the specification as originally filed.

Support for new claim 25 can be found at, for example, page 6, lines 27-30 of the specification as originally filed.

CONCLUSION

For the foregoing reasons, reconsideration and allowance of the pending claims of the application as amended is requested. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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